REMARKS

This communication is in response to the Final Office Action of June 1, 2009.

The Examiner has rejected claims 1, 21, and 25 under 35 U.S.C. 103(a) as being unpatentable over Giemborek et al. (US 6,950,105), in view of Williams et al. (US 6,397,343), in view of Oliver et al. (US 7,243,217) and further in view of Gulick (US 6,061,802).

The Examiner has rejected claims 28-30 under 35 U.S.C. 103(a) as being unpatentable over Giemborek et al. (US 6,950,105), in view of Williams et al. (US 6,397,343), in view of Oliver et al. (US 7,243,217) and further in view of Gulick (US 6,061,802), as applied to claims 1, 21 and 25 above, and further in view of Culbert et al. (US 6,820,209).

It is Applicant's understanding that the Examiner is construing the prior art more broadly than Applicant and further not affording sufficient weight to previously presented remarks.

In the interests of resolving differences of interpretation, Applicant has made a clarifying amendment. In particular, Applicant has clarified aspects of the graphics pipeline. Applicant has also clarified that the performance level is adjusted to be a minimum performance level to maintain the minimum display rate.

In the claimed invention the graphics pipeline is monitored to detect whether one or more stages are being held up waiting for inputs from upstream stages. The performance level is adjusted based on this input. That is, if over-utilization is detected, the performance level may be adjusted to increase the processor core clock rate to prevent downstream stages from being held up.

The claimed invention addresses a problem in the prior art. By detecting conditions in which one or more stages are held up waiting for data from over-utilized upstream stages, the processor core clock rate can be adjusted as needed to adapt to changes in pipeline operation to maintain a minimum frame rate. However, the performance level can also be decreased when there is under-utilization. That is, the processor core clock rate may be increased only as required to maintain the minimum frame rate. The end user has the benefit of a pleasant user experience and power is not wasted when the pipeline is under-utilized.

It is respectfully submitted that the amended claims distinguish over the cited art and fully address differences in interpretation with the examiner. Reconsideration is respectfully requested.

In view of the foregoing amendments and remarks, it is respectfully submitted that the

application is now in condition for allowance. The Examiner is invited to contact the undersigned if there are any residual issues that can be resolved through a telephone call.

The Commissioner is hereby authorized to charge any appropriate fees to Deposit Account No. 50-1283.

Dated: 9/25/09

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